



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,402	12/28/2001	Ben B. Wang	14882RRUS01U	3378
7590 03/21/2007 WEI WEI JEANG HAYNES AND BOONE LLP 901 MAIN STREET SUITE 3100 DALLAS, TX 75202-3787			EXAMINER POLLACK, MELVIN H	
			ART UNIT 2145	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/21/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/035,402	Applicant(s) WANG ET AL.	
	Examiner Melvin H. Pollack	Art Unit 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>see attached office action</u> . |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 21 December 2006 have been fully considered but they are not persuasive. An analysis of the arguments is provided below.
2. This action has been made non-final, in order to add new 101 rejections regarding the statutory nature of certain claims. The examiner uses Pp. 3-5 of the specification as intrinsic evidence, where given. The examiner has also added specification objections for terms that have neither explicit definitions nor preferred embodiments or examples.
3. Applicant argues that Bommareddy does not expressly disclose translating the identifier into a group identification representative of a plurality of identifiers (P. 5, lines 11-20). The office disagrees, but has decided further clarification is necessary. Attached to any subscriber is really two types of IP addresses: a physical IP address (i.e. the destination address) that is uniquely assigned, and the logical IP address (logical router cluster address) that is assigned to all subscribers within a cluster. Thus, the logical address conforms to the definition of a group identification, as drawn in the claims, as it represents a plurality of physical IDs. The cited art shows translation in both directions, and thus the limitation is taught.
4. Applicant also argues that Bommareddy fails to expressly disclose indexing an address table, as opposed to a list of routers (P. 5, lines 21-28). The router list contains several addresses of both logical and physical types, with the logical address acting as the index (col. 8, lines 35-65). In this way, the system may ensure that the same packet uses the same router every time, barring inoperability of the router (col. 7, lines 1-12).
5. Therefore, the art rejection is maintained for the reasons above.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. There is evidence in the specification (Pp. 3-5), when interpreted by one of ordinary skill in the art, that the claims as drawn may reasonably be described as software-per-se. More particularly, the claims as drawn may refer to non-physical embodiments and/or to failing to have physical embodiments that are structurally and functionally interconnected with the software. These claims are further non-statutory due to their lack of a storage medium from which software is executed, and from the lack of a tangible result, such as “mapping the group identification to a first node of the network.”

Specification

7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the embodiments of translation and memory module, and of processing element, as cited in claims 8 and 12.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

Art Unit: 2145

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-4, 6, 8, 9, 11-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Bommareddy et al. (6,779,039).
10. For claim 1, Bommareddy teaches a method (abstract) for addressing a node in a network (col. 1, line 1 – col. 4, line 67), comprising:
 - a. Reading (Fig. 2, #216) an identifier (Figs. 3 and 4) comprising an identification uniquely assigned to a subscriber (col. 6, lines 65-67);
 - b. Translating the identifier into a group identification (col. 6, lines 30-60) representative of a plurality of identifiers (col. 7, lines 20-25);
 - c. Responsive to translating the identifier, indexing an address table using the group identification (col. 7, lines 10-15); and
 - d. Mapping the group identification to a first node of the network (col. 7, lines 1-10).
11. For claim 2, Bommareddy teaches that translating the identifier into a group identification further comprises translating the identifier into one of a plurality of group identifications (col. 5, lines 60-65).
12. For claim 3, Bommareddy teaches that indexing an address table with the group identification further comprises indexing a record of the table having a field element corresponding to the group identification (col. 7, lines 10-15).
13. For claim 4, Bommareddy teaches that mapping the group identification to a first node further comprises mapping the group identification (Fig. 3) to a first node of a plurality of nodes of the network (Figs. 1 and 8).

Art Unit: 2145

14. For claim 6, Boomareddy teaches that translating the identifier further comprises translating the identifier by a hashing function (col. 16, lines 5-35).

15. For claim 8, Bommareddy teaches a message distributor (abstract) for processing an identifier uniquely assigned to a subscriber (col. 1, line 1 – col. 4, line 67), comprising:

- a. A translation module (Fig. 1, #110) for receiving the identifier (Fig. 2, #216) and converting the identifier (Fig. 3, #310) into one of a plurality of group identifications (Fig. 1, #114 or #115), wherein each of the plurality of group identifications may be obtained from a respective plurality of identifiers each respectively assigned to one of a plurality of subscribers (col. 5, line 60 – col. 7, line 25); and
- b. A first table including a plurality of records each indexable using one of the plurality of group identifications, an indexed record including an element having a first address of a processing node (col. 7, lines 10-15).

16. For claim 9, Bommareddy teaches that the translation module is a hashing function (col. 16, lines 5-35).

17. For claim 11, Bommareddy teaches that the translation module is operable to translate a plurality of identifiers into a common group identification of the plurality of group identifications (col. 6, line 30 – col. 7, line 25).

18. For claim 12, Bommareddy teaches a processing element, and a memory module maintaining the translation module and the first table, the translation module maintained by the memory module as an instruction set executable by the processing element (col. 5, lines 40-45).

19. For claim 13, Bommareddy teaches that the identifier is included (Fig. 3, #310) in a message received by the message distributor (Fig. 2, #216) and the message is routed to the

Art Unit: 2145

processing node by the message distributor (Fig. 3, #314) upon indexing of the record (Fig. 3, #312).

20. For claim 14, Bommareddy teaches that the message distributor (Fig. 5) is operable to receive a second identifier (col. 5, lines 60-65) and the translation module is operable to translate the second identifier (Fig. 4) into a second group identification of the plurality of group identifications (col. 6, line 30 – col. 7, line 25), and wherein a second record is indexed by the second group identification (col. 16, lines 5-30).

21. For claim 15, Bommareddy teaches that the second record includes a second element having a second address (col. 7, line 65 – col. 9, line 10).

22. For claim 16, Bommareddy teaches that the second address is equivalent to the first address (col. 7, line 65 – col. 9, line 10).

23. For claim 17, Bommareddy teaches that the second address is different than the first address (col. 7, line 65 – col. 9, line 10).

24. For claim 18, Bommareddy teaches an interface with a plurality of processing nodes (Fig. 7).

25. For claim 19, Bommareddy teaches that the interface is a network interface (Fig. 1, #128).

26. For claim 20, Bommareddy teaches that the interface is an address bus of the message distributor (Fig. 7, #701).

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2145

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. Claims 5, 7, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shaul et al. (6,976,090).

29. For claim 5, Bommareddy does not expressly disclose that reading an identifier further comprises reading a text-based identifier. Ben-Shaul teaches a method (abstract) of improving hierarchical data distribution networks (col. 1, line 1 – col. 17, line 45), wherein identifiers similar to those of Bommareddy (destination IP addresses) are read in text format (col. 57, lines 47-49). At the time the invention was made, one of ordinary skill in the art would have added text identifiers in order to more easily handle multiple identifiers (col. 57, lines 40-46).

30. For claim 7, Bommareddy does not expressly disclose that translating the identifier into a group identification further comprises translating the identifier into a numerical-based group identification. Ben-Shaul teaches a method (abstract) of improving hierarchical data distribution networks (col. 1, line 1 – col. 17, line 45), wherein identifiers similar to those of Bommareddy (destination IP addresses) are read in numerical-based format (col. 57, lines 47-49). At the time the invention was made, one of ordinary skill in the art would have added numerical-based identifiers in order to more easily handle multiple identifiers (col. 57, lines 40-46).

31. For claim 10, Bommareddy does not expressly disclose that the identifier is a text-based identifier and the group identification is a numerical-based identification. Ben-Shaul teaches this limitation (col. 57, lines 47-49). At the time the invention was made, one of ordinary skill in the art would have added numerical-based identifiers in order to more easily handle multiple identifiers (col. 57, lines 40-46).

Art Unit: 2145

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H. Pollack whose telephone number is (571) 272-3887. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melvin H Pollack
Examiner
Art Unit 2145

MHP
12 March 2007

